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Docket No. UF-167XC3102

Serial No. 10/722,077

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In the Claims

Claim 1 (Currently Amended): A composition comprising a polynucleotide which encodes a polypeptide having the characteristic of eliciting an immune response protective against disease or death caused by a rickettsial pathogen, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 26 selected from the group consisting of SEQ ID NOs: 26, 28, 30, 34, and immunogenic fragments thereof.

Claim 2 (Original): The composition, according to claim 1, wherein said rickettsial pathogen is selected from the group consisting of *Rickettsia* spp., *Ehrlichia* spp., *Anaplasma* spp., and *Cowdria* spp.

Claim 3 (Currently Amended): The composition, according to claim 1, wherein said polynucleotide comprises the nucleic acid sequence selected from the group consisting of SEQ ID NOs: 25, 27, 29, 33, of SEQ ID NO: 25 and fragments thereof which encode immunogenic polypeptide fragments.

Claim 4 (Original): The composition, according to claim 1, wherein said polynucleotide further comprises a nucleic acid vaccine vector.

Claim 5 (Original): The composition, according to claim 1, further comprising a pharmaceutically acceptable carrier.

Claim 6 (Currently Amended): ~~A polynucleotide~~ An isolated polynucleotide encoding a polypeptide comprising ~~SEQ ID NOs: SEQ ID NO: 26 or fragments thereof~~ 26, 28, 30, 34, or fragments thereof.

Claim 7 (Canceled):

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Claim 8 (Currently Amended): A method for protecting a susceptible host against disease or death caused by a rickettsial pathogen, said method comprising administering an effective amount of a composition comprising a polynucleotide according to claim 1 encoding polypeptide according to claim 1.

Claim 9 (Original): The method, according to claim 8, wherein said rickettsial pathogen is selected from the group consisting of *Rickettsia* spp., *Ehrlichia* spp., *Anaplasma* spp., and *Cowdria* spp.

Claim 10 (Currently Amended): The method, according to claim 10, wherein said polynucleotide comprises SEQ ID NO: 25 ~~SEQ ID NOs: 25, 27, 29, 33~~ or fragments thereof.

Claim 11 (Currently Amended): The method, according to claim 10, wherein said nucleic acid polynucleotide further comprises an appropriate nucleic acid vector.

Claim 12 (Original): The method, according to claim 10, wherein said composition further comprises a pharmaceutically acceptable carrier.

Claim 13 (Currently Amended): The method, according to claim 10, which further comprises administration to said host a polypeptide comprising ~~SEQ ID NOs: 26, 28, 30, 34~~ SEQ ID NO: 26, or immunogenic fragments thereof.

Claim 14 (Currently Amended): The method according to claim 10, wherein said polynucleotide comprises a sequence ~~encoding a polypeptide that begins at: a) base 46 of SEQ ID NO: 25 and encodes amino acids 16-205 of SEQ ID NO: 26; b) base 76 of SEQ ID NO: 27; c) base 58 of SEQ ID NO: 29; or d) base 79 of SEQ ID NO: 33.~~

Claim 15 (New): The composition according to claim 1, wherein said polynucleotide comprises a sequence that encodes amino acids 16 to 205 of SEQ ID NO: 26.

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Claim 16 (New): The composition according to claim 15, wherein said polynucleotide encodes amino acids 16 to 205 of SEQ ID NO: 26.

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